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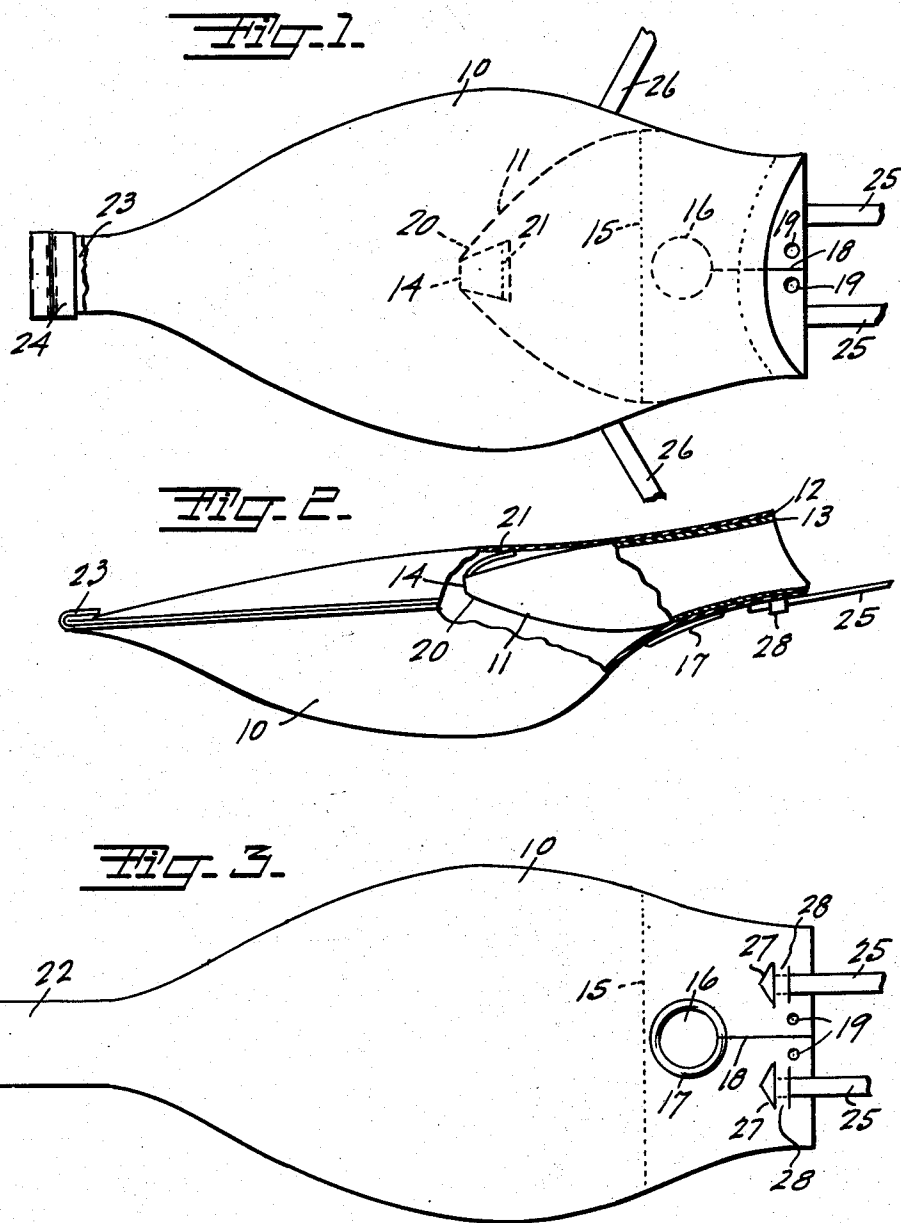
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2,593,051

DISPOSABLE URINAL WITH LIQUID TRAP

Filed Oct. 25, 1950

2 SHEETS—SHEET 1



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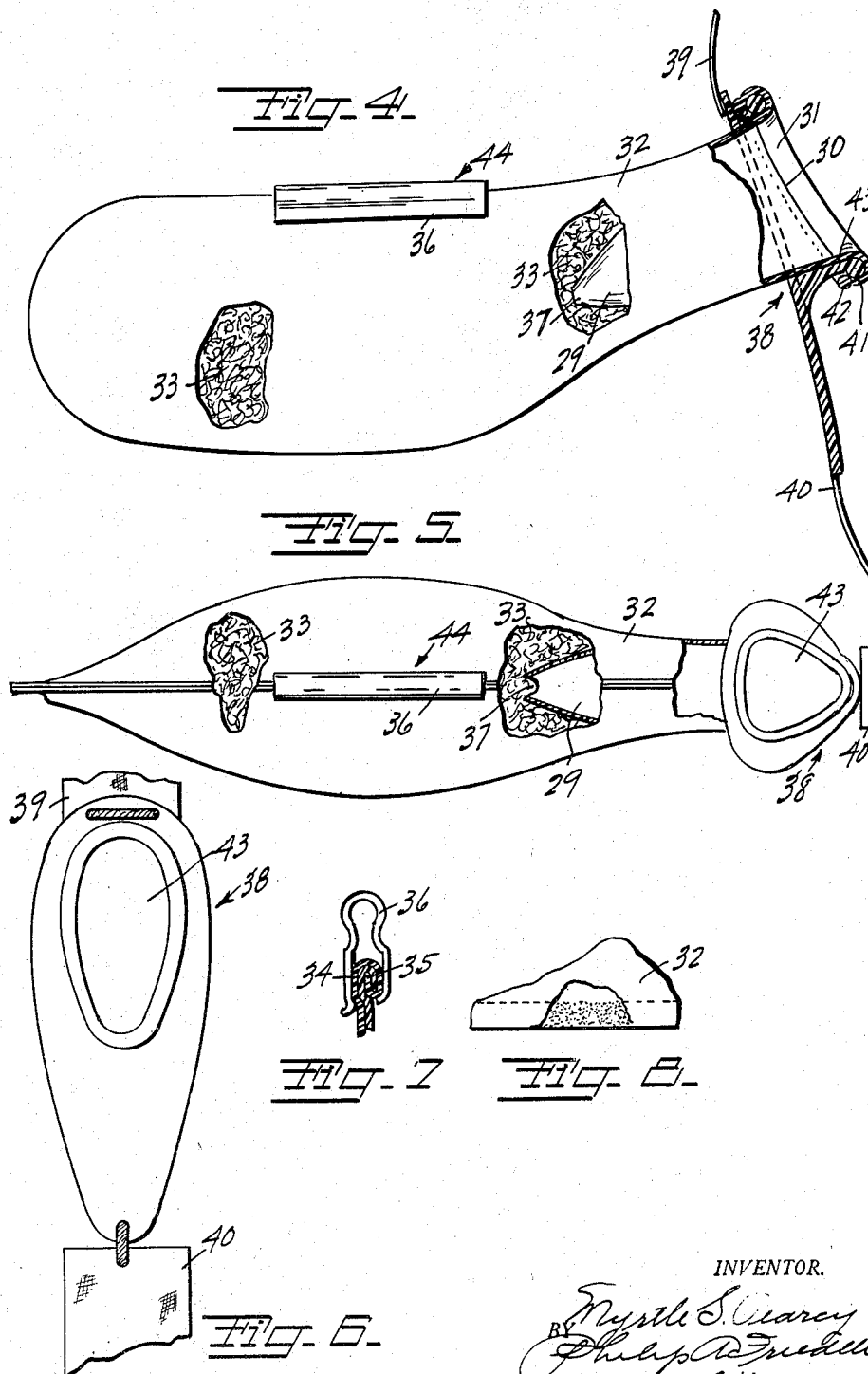
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2 SHEETS—SHEET 2



UNITED STATES PATENT OFFICE

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DISPOSABLE URINAL WITH LIQUID TRAP

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5 Claims. (Cl. 128—295)

1

This invention relates to improvements in urinals, particularly for use of bed patients, though it can be used for patients who are not bedridden and provides a urinal of relatively low cost, sufficiently so as to permit its being discarded when there is no further need for it, or if it becomes internally coated or otherwise being undesirable for further use.

The invention also includes the use of removable inexpensive absorbent material which functions to prevent collapsing of the urinal through leg pressure as also to absorb the liquids and thus assure a non-spilling urinal. A further improvement is the provision of a moderately rigid header for the female type of urinal to which the disposable urinals are quickly and easily connected, and the use of a disconnectable breech strap which is formed of moderately rigid material to prevent its being drawn into the crotch of the patient, and to make the urinals so that they are easily emptied and cleaned.

The objects and advantages of the invention are as follows:

First, to provide a trap type of flexible urinal which is of the most economical construction to permit disposal or discarding when further use is not warranted, or undesirable.

Second, to provide a urinal as outlined which is formed of an outer bag and an inner bag with the bags having a common entrance and sealed together at the entrance, and in which the inner bag provides a passage to the outer bag and a trap against return of liquid from the outer bag.

Third, to provide a urinal as outlined in which the outer bag is provided with a supply of inexpensive absorbent material for absorption of liquid and to prevent collapse of the urinal through leg pressure.

Fourth, to provide a urinal as outlined which is entirely devoid of metal parts and therefore not subject to corrosion.

Fifth, to provide a urinal as outlined with a relatively rigid header to which the dual bag is easily attachable without recourse to fastening means, and as easily detached, to permit discarding of the dual bags while retaining the header for future use, thus providing for the utmost economy.

In describing the invention reference will be had to the accompanying drawings, in which:

Fig. 1 is a top plan view of the male type of urinal.

Fig. 2 is a side elevation of Fig. 1 shown partly in section.

Fig. 3 is a bottom plan view of Fig. 1.

2

Fig. 4 is a side elevation of the female type of urinal.

Fig. 5 is a top plan view of Fig. 4 shown partly in section.

Fig. 6 is a front elevation of the header for the female type of urinal.

Fig. 7 shows a section through the sealing fold with the clamp applied thereto.

Fig. 8 is a fragmentary view showing the sealing of the edges when the urinal is made in two parts.

The invention consists essentially of an outer bag or container 10 and an inner bag 11 both having forward ends respectively 12 and 13 with the forward end of the inner bag fitting in the forward end of the outer bag and being sealed thereto, the inner bag having a small passage at 14 for passage of liquid from the inner bag to the outer bag or container and otherwise forming a closure for the outer bag, the inner bag and outer bag being sealed together from the forward end 13 of the inner bag to a point 15 to reinforce this area and provide a more rigid structure, and an entrance 16 is formed through this reinforced portion and provided with suitable encircling cushioning means such as a curl 17 to prevent chafing, and this portion is slit from the forward end through the forward side of the entrance as indicated at 18, and suitable eyelets 19 are formed on the respective sides of this slit for a string or the like for tying the ends together while in use. Obviously snap fasteners or other means could be used but the object of this invention is to avoid anything of a metallic nature, the entire urinal being formed solely of a waterproof material, such as a thin resilient plastic.

The inner bag has its rearward end 20 supported by the upper wall of the container as indicated at 21, and the rearward end 22 of the container is open for discharge of liquid, and during use is sealed by folding over as indicated at 23 and applying a clamp 24 formed of plastic material of a resilient type. Suitable straps 25 and 26 are provided for securing the urinal in position on the patient, and these straps are made removable and replaceable and being formed of a relatively stiff material with a head formed at one end as indicated at 27 and with the strap passing through a slit portion 28 formed in the outer bag. Therefore, when the urinal is to be discarded, the straps and clamp can be removed for use with a replacement at any time.

In the female type shown, the inner bag 29 has its forward end 30 sealed to the inside of the forward end 31 of the outer bag or container 32

3

in the same way as was described for the male type, and is a modification applicable, like Figs. 1, 2 and 3, to either male or female so far as the bag structures are concerned.

In this modification the opening is made in the top of the bag and is elongated, being long enough to permit the insertion and removal of an absorbent filler 33 of inexpensive material such as cellulose cotton, to absorb liquids and maintain the container in an expanded form against leg pressure, this opening being formed with extensions 34 and 35 which are folded over as indicated in Fig. 7 and sealed by a plastic or similar clamp 36. Similar to the type previously described, the inner bag has a small opening 37 at its rearward end for discharge of liquid into the outer bag or container, the absorbent material 33 absorbing the liquid as it enters through the small opening 37.

A header 38 is formed of suitable resilient or flexible material of sufficient rigidity to permit its being drawn into absolute contact with the patient through straps 39 and 40 which, like the ones previously described, are removable, and made of a fairly rigid but flexible or resilient material to permit conformation to the main body structure without any tendency to be drawn into the crotch to cause discomfort, and this header is formed with a projecting roll collar 41, and the outer bag has its forward end formed with a roll 42 to fit about the roll collar and secure the outer bag to the header.

Thus, with this type of urinal, the header, being formed by molding, would add a prohibitive cost to a bag intended to be used only during an emergency such as a short illness or until the bag is undesirable for further use; therefore, this header is removed by merely slipping the roll 42 of the end of the bag back over the roll collar on the header and drawing the end back through the entrance 43. The bag can then be discarded and the header used with another bag or saved for such time as the urinal may be again required.

In using this urinal, the bag is fixed to the header as shown in Fig. 4. The inside of the outer bag is filled with an inexpensive absorbent material, the extensions at the opening at 44 are curled in as shown in Fig. 7, and the clamp applied, after which the urinal is applied to the person and secured in position by means of the straps in conjunction with adhesive tape, or by securing to a belt or the like, which items are well known and do not form a part of this invention and therefore are not shown. Obviously the clamps can also be saved, so that when discarding, only the dual bag is discarded. This latter type also has the advantage of being more easily and thoroughly cleaned on account of the large opening which permits unrestricted access to the interior.

I claim:

1. A urinal, in combination; a container formed of waterproof resilient material and having a top wall and having a forward open end and permanently sealed at the other end, a bag of relatively small dimensions as related to the container and having an open forward end sealed inside the forward end of said container and having a small opening providing passage to the container from

4

its rearward end and otherwise forming a closure for the container, and formed of waterproof material and an entrance provided for the forward end of said bag said container having an opening formed through the top wall intermediate the length thereof for insertion and removal of absorbent cushioning material, and closing and sealing means for said opening, said container being filled with removable absorbent cushioning material for absorbing liquids and to maintain the container in an expanded condition against pressure between the legs of a person.

2. A urinal comprising a container formed of flexible waterproof material and having a top wall and a bottom wall and having a reduced neck portion terminating in an attaching portion provided with an entrance opening, a substantially conical sleeve having the base end of its walls sealed to the inside walls of said neck portion adjacent to said terminal attaching portion and extending inwardly into said container and having a restricted opening through the apex of the conical sleeve, an opening formed through the top wall of said container for insertion and removal of absorbent material and discharge of liquid contents, and releasable sealing means for said opening, and a supply of absorbent cushioning material filling said container to maintain the container in an expanded condition against pressure between the legs of a person.

3. A structure as defined in claim 2; a short connection between said top wall and said apex for supporting the apex portion of said sleeve in an elevated position relative to said bottom wall to prevent return flow of liquid therethrough.

4. A urinal comprising a bag formed of flexible waterproof material and having a top wall and having an entrance at one end and with the other end permanently sealed, an access opening formed through said top wall intermediate the length thereof for insertion and removal of absorbent material and for discharge of contents, and releasable sealing means for said opening, and a supply of absorbent cushioning material filling said bag for absorbing the liquids and for maintaining the expanded condition of the bag under pressure exerted between the legs of a person.

5. A structure as defined in claim 4; a substantially conical sleeve having a base portion and an apex portion and extending into said bag and having its base portion sealed to the inside walls of said bag adjacent to said entrance and having an opening formed through the apex portion for transfer of fluid to said absorbent material, and with said absorbent material filling the entire space within the confines of the bag and sleeve.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
741,173	Leidel	Oct. 13, 1903
1,490,793	Ajamian et al.	Apr. 15, 1924
2,310,505	Blackburn et al.	Feb. 9, 1943